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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/898,358	07/03/2001	Fred A. Fensel	3003-37	1062

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HAHN LOESER & PARKS, LLP
TWIN OAKS ESTATE
1225 W. MARKET STREET
AKRON, OH 44313

EXAMINER

WATKINS III, WILLIAM P

ART UNIT	PAPER NUMBER
1772	

DATE MAILED: 03/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/898,358

Applicant(s)

FENSEL ET AL.

Examiner

William P. Watkins III

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01 July 2003 has been entered.

2. The examiner has corrected the filing date of the provisional application from 12/20/2001 to 12/21/2000 in the priority claim at the beginning of the specification by informal examiner's amendment.

3. Claims 1-18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the

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inventor(s), at the time the application was filed, had possession of the claimed invention.

It is not clear where the broad limitation of the coating being "free of voids" as opposed to "free of voids of entrained air" is supported in the original specification.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admissions in the specification in view of Liang et al. (U.S. 5,705,564) further in view of Hayner (U.S. 6,027,557) further in view of Trumbore et al. (U.S. 6,352,744 B1).

Applicant admits that use of polymer modified bitumen in a roofing membrane with a fibrous core; granular top surface and anti-stick bottom surface is old (paragraph 0017). Liang et al. teaches mixing of a polymer modifier with bitumen under vacuum

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in order to remove air and prevent decomposition of the modifier (col. 9, lines 20-25, col. 10 lines 25-35, 45-50). Hayner teaches the uses of SBS, SIS, SEBS, and SB either alone or in mixtures to modify bitumen (col. 10 lines 50-65, col. 9, 50-55). Trumbore et al. teaches the use of vacuum to remove air from an asphalt coating mixture before coating on a substrate to produce a roofing product to reduce voids in the final product (abstract). The instant invention claims the use of vacuum to remove air from bitumen mixed with a modifier used in a roofing sheet, and the use of blends of SBS and secondary polymers to modify the bitumen. It would have been obvious to one of ordinary skill in the art to have mixed the modifier of applicant's admission under vacuum or nitrogen blanket in order to prevent decomposition of the modifier because of the teachings of Liang et al. It further would have been obvious to have used a mixture of a secondary polymer in combination with SBS because of the teachings of Hayner that a mixture of polymer modifiers produces an acceptable result. It further would have been obvious to select mixing under vacuum from the methods of applicant's admission in view of Liang et al. further in view of Hayner in order to achieve minimal voids in the coating of the

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final roofing product because of the teachings of Trumbore et al.

6. Applicant's arguments filed 01 July 2003 have been considered but are not persuasive.

Applicant argues that Liang et al. teaches both vacuum and a nitrogen blanket as options and that one of ordinary skill in the art would not have been led to a void free final product by this teaching. A further reference has been added to the combination to better explicitly address this argument. The previous rejection is withdrawn in favor of the new grounds of rejection.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Watkins III whose telephone number is 571-272-1503. The examiner works an increased flex time schedule, but can normally be reached Monday through Friday, 11:30 A.M. through 8:00 P.M. Eastern Time. The examiner returns all calls within one business day unless an extended absence is noted on his voice mail greeting.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

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may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



WW/ww

February 22, 2004

**WILLIAM P. WATKINS III
PRIMARY EXAMINER**